Before You Read

A. Matching. Look at the information below. How many milligrams (mg) of caffeine do you think is in each item? Match a letter from the chart (**a–h**) to each item. Then check your answers on page 120.

Caffeine is a naturally occurring substance that can affect a person's nervous system. Most people associate caffeine with coffee, but it can also be found in many other familiar items.

1. Espresso coffee, 30 ml (1 oz) _____
2. Milk chocolate bar, 170 g (6 oz) _____
3. Brewed tea, 240 ml (8 oz) cup _____
4. Can of energy drink, 240 ml (8 oz) _____
5. Brewed coffee, 360 ml (12 oz) cup _____
6. Bottle of cola, 600 ml (20 oz) _____
7. Large soda drink, 1.7 l (64 oz) _____
8. Pain relief medicine (2 tablets) _____

B. Discussion. Do you think caffeine is good for you? Read the passage on pages 107–108 to check your ideas.

CAFFEINE:

THE WORLD'S FAVORITE DRUG

It's 1:45 A.M., and 21-year-old Thomas Murphy is burning the midnight oil,[1] studying for an important engineering exam he has at 2:00 in the afternoon later today. To stay awake and focused, he's had two cups of coffee in the last three hours and is now downing a popular energy drink—one that has two to three times the amount of caffeine as a similar sized can of soda. Many students like Murphy, as well as marathon runners, airline pilots, and long-distance travelers, owe their energy—and sometimes their efficiency—to one of humankind's oldest stimulants:[2] caffeine.

The power to counter[3] physical fatigue[4] and increase alertness is part of the reason caffeine ranks as the world's most popular mood-altering[5] drug. It is found not only in sodas, energy drinks, coffee, and tea, but also in diet pills, pain relievers (like aspirin), and chocolate bars. Many societies around the world have also created entire **rituals** around the use of caffeine: afternoon tea in the U.K., the café culture of France, the tea ceremony in Japan, and the morning cup of coffee or tea that in many cultures marks the start of the day.

Caffeine is present in many of the foods or drinks we consume, but is it really good for us? Charles Czeisler, a scientist and sleep expert at Harvard Medical School, believes that caffeine causes us to lose sleep, which he says is unhealthy. "Without adequate sleep—the typical eight hours—the human body will not function at its best, physically, mentally, or emotionally." Too often, Czeisler says, we consume caffeine to stay awake, which later makes it impossible for us to get the rest we need.

Ripening berries on the stem of a coffee plant

1 If someone is **burning the midnight oil**, they are staying up very late in order to study or do some other work.

2 A **stimulant** is a substance that can temporarily increase the activity of body processes.

3 To **counter** something is to produce an effect that is opposite of what is being experienced.

4 **Fatigue** is the feeling of extreme mental or physical tiredness.

5 A **mood-altering** substance is capable of causing changes in your mood.

Health risks have also been tied to caffeine consumption. Over the years, studies have attributed higher rates of certain types of cancer and bone disease to caffeine consumption. To date, however, there is no proof that caffeine actually causes these diseases.

A number of scientists, including Roland Griffiths, a professor at the Johns Hopkins School of Medicine in the U.S., believe that regular caffeine use causes physical **dependence**. Heavy caffeine users, Griffiths says, **exhibit** similar behaviors: Their moods **fluctuate** from high to low; they get mild to **severe** headaches; or they feel tired or sad when they can't have a coffee, a soft drink, an energy drink, or a cup of tea. To minimize or stop these feelings, users must consume caffeine—a behavior Griffiths says is characteristic of drug addiction.

Despite these concerns, the general opinion in the scientific community is that caffeine is not dangerous when consumed moderately—for example, having one or two small cups of coffee (about 300 milligrams of caffeine) per day. **Furthermore**, a lot of current research **contradicts** long-held negative beliefs about caffeine, and suggests that it may, in fact, have health benefits. For instance, studies have shown that caffeine can help ease muscle pain. Because it is a stimulant, caffeine can also help improve one's mood. Research has also shown that some caffeinated drinks—specifically certain teas—have disease-fighting chemicals that can help the body fight a number of illnesses, including certain types of cancer.

In addition, as a type of mental stimulant, caffeine increases alertness, memory, and reaction speed. Because it fights fatigue, it **facilitates** performance on tasks like driving, flying, and solving simple math problems. And while it is true that caffeine can increase blood pressure, the effect is usually **temporary** and therefore not likely to cause heart trouble—especially if caffeine is consumed in moderation.[6]

Moreover, despite its nearly universal use, caffeine has rarely been **abused**. "With caffeine, overuse tends to stop itself," says Jack Bergman, a specialist at Harvard Medical School. If you consume too much, "you get . . . uncomfortable, and you don't want to continue."

Caffeine's behavioral effects are real, but most often mild. Getting that burst of energy, of course, is why many of the most popular drinks on Earth contain caffeine. Whether it's a student drinking coffee before class or a businessperson enjoying tea with lunch, humankind's favorite stimulant is at work every day, all over the world.

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6 If you do something **in moderation** (e.g., smoke or drink), you don't do more than what is reasonable.

A 26-year-old Japanese "cappuccino painter" named Kazuki Yamamoto uses foam to make three-dimensional designs in what coffee fans call "latte art."

Reading Comprehension

Multiple Choice. Choose the best answer for each question.

Gist

1. What is this reading mainly about?
a. the popularity of coffee
b. the effects of caffeine on the body
c. healthy vs. unhealthy caffeine products
d. the dangers of caffeine intake

Vocabulary

2. In line 5, the word *downing* could be replaced with _____.
a. holding b. waking
c. decreasing d. drinking

Reference

3. In line 25, *which* refers to _____.
a. adequate sleep
b. lack of sleep
c. food containing caffeine
d. consuming caffeine

Inference

4. Which statement would sleep expert Charles Czeisler probably agree with?
a. It's a good idea to consume caffeine if you want to maintain your energy.
b. Regular consumption of caffeine will make it difficult for you to get enough rest.
c. How caffeine affects your sleep depends on the type of caffeine you consume.
d. Caffeine can help you get an adequate amount of sleep if consumed in moderation.

Detail

5. Which of the following is NOT listed as a possible side effect of drinking caffeine?
a. addiction
b. mood changes
c. painful headaches
d. muscle inflammation

Paraphrase

6. Which of the following is closest in meaning to: *Moreover, despite its nearly universal use, caffeine has rarely been abused.* (lines 77–78)?
a. Even though caffeine is consumed almost the world over, there aren't many instances of misuse.
b. Even though caffeine is often misused, it is consumed almost the world over.
c. Despite caffeine's popularity, addiction isn't a problem.
d. Caffeine is used all over the world, so it is commonly misused.

Cohesion

7. The following sentence would best be placed at the end of which paragraph? *Many say they couldn't live without it.*
a. 1 (starting line 1) b. 4 (starting line 31)
c. 6 (starting line 50) d. 8 (starting line 77)

Critical Thinking

Evaluating: Do you think the author is for or against consuming caffeine in day-to-day life? Give reasons to support your ideas.

Discussion: After reading about caffeine, will you change your caffeine consumption in any way? How?

Reading Skill

Understanding Pros and Cons

A writer often discusses both sides of an argument or an issue. Understanding the reasons for an issue (the pros) and the reasons against an issue (the cons) helps you evaluate the author's claims and determine your position about the issue. The most effective way to do this is to list the pros and cons in two separate columns. This allows you to determine the strength of each claim.

A. Completion. Look back at the reading on pages 107–108. Complete the chart with the pros and cons of caffeine consumption.

Caffeine consumption

Pros	Cons
• counters _____ fatigue • increases alertness • can help _____ muscle pain • improves mood • can help fight certain illnesses • increases alertness, _____, and reaction speed • improves performance • no serious risk of _____	• causes us to lose _____ • possible risks of cancer and bone disease • can be addictive • causes _____ changes • can cause headaches • going without causes tiredness and _____ • increases _____ temporarily

B. Evaluating. Is eating chocolate good for you? Mark each statement as **P** (a pro) or **C** (a con).

1. _____ It can be expensive if eaten every day.
2. _____ It can cause mood swings.
3. _____ It contains a low level of caffeine, which can help increase alertness.
4. _____ The sugar in chocolate can cause tooth decay.
5. _____ The calcium in chocolate can reduce the harmful effects of tooth decay.
6. _____ It has a lot of calories—just 100 grams contains 520 kcals.

Vocabulary Practice

A. Completion. Complete the information below with the correct form of words from the box. One word is extra.

abuse	**depend**	**exhibit**
facilitate	**furthermore**	**severe**

Did you know that you are **1.** _____ your dog if you feed it chocolate? Too much chocolate can be harmful for dogs and can cause a variety of medical problems. The extent of harm usually **2.** _____ on the type of chocolate. **3.** _____, it is also affected by the amount of chocolate that the dog consumes. Some of the effects are quite **4.** _____, and could possibly lead to death. So if your dog **5.** _____ symptoms such as rapid breathing, or vomiting, it's possible that a chocolate "treat" was the cause.

B. Words in Context. Complete each sentence with the correct answer.

1. If you **facilitate** something, you make it _____.
   a. easier b. more difficult
2. Something that is **temporary** continues _____.
   a. forever b. for a limited time
3. A **ritual** is a series of actions or behaviors that is repeated _____.
   a. formally b. randomly
4. If something is **contradictory**, it _____ another argument.
   a. opposes b. supports
5. If something **fluctuates**, it _____ a lot in an irregular way.
   a. changes b. fights

A dog begging for chocolate

Thesaurus
furthermore
Also look up:
(adv.) moreover, in addition, as well, on top of that.